

Multiplying Mixed Numbers

Puzzle 6-2

Write a fraction or mixed number in each blank square so that the equations across and down are correct. Study the example.

Example:

$1\frac{1}{4}$	•	$2\frac{1}{3}$	=	
•		•		•
$2\frac{1}{4}$	•	$\frac{4}{7}$	=	
=		=		=
	•		=	



$$1\frac{1}{4} \cdot 2\frac{1}{4} \rightarrow$$

$1\frac{1}{4}$	•	$2\frac{1}{3}$	=	$\frac{35}{12}$
•		•		•
$2\frac{1}{4}$	•	$\frac{4}{7}$	=	$\frac{9}{7}$
=		=		=
$\frac{45}{16}$	•	$\frac{4}{3}$	=	$\frac{15}{4}$

$$1\frac{1}{4} \cdot 2\frac{1}{3}$$

Use this square as a check.

1.

$2\frac{1}{4}$	•	$\frac{4}{5}$	=	
•		•		•
$1\frac{1}{6}$	•	$1\frac{1}{7}$	=	
=		=		=
	•		=	

2.

$1\frac{1}{8}$	•	$3\frac{1}{3}$	=	
•		•		•
$2\frac{3}{4}$	•	$\frac{1}{5}$	=	
=		=		=
	•		=	

3.

$1\frac{1}{3}$	•	$2\frac{3}{4}$	=	
•		•		•
6	•	$\frac{11}{12}$	=	
=		=		=
	•		=	

4.

$3\frac{1}{4}$	•	$\frac{5}{7}$	=	
•		•		•
$1\frac{1}{3}$	•	$1\frac{2}{5}$	=	
=		=		=
	•		=	

Enrichment 6-4

Dividing Mixed Numbers

Visual Thinking

A wallpaper design measures $4\frac{3}{8}$ inches in length. How many times does a single row of the design repeat around the top of the walls of a room that measures $12\frac{1}{2}$ ft by $10\frac{1}{4}$ ft?

1. Circle the information you need.
2. Draw a diagram of the room.
labeling the length and width.
3. Write a numerical expression showing the total distance around the room. _____
4. What operation would you use to find the number of times the design repeats? _____
5. Why do you need to convert the total distance around the room from feet to inches?

6. What is the total distance in feet? In inches?

7. How many times does the design repeat?

8. Could you solve the problem by converting the length of the border design from inches to feet? Explain.

9. A baseboard design repeats every $3\frac{1}{2}$ inches. How many times does a single row of the design repeat around the walls of a room that measures $10\frac{3}{4}$ ft by $13\frac{3}{4}$ ft?
